

- Fig. 15. The same, with one division of the spore abortive.
 Fig. 16. The same. Sporangial frustule surmised to be of the size produced by these conjugations. In all these frustules the specific characters are too small to be delineated on the scale to which they are drawn, although perfectly distinct under the microscope.
 Fig. 17. *Pinnularia gibba*, Ehr. In conjugation. The pellicle of the gelatinous secretion and the ends of the capsules absent.
 Fig. 18. The same; more advanced stage. The valves of one of the conjugating frustules absent.
 Fig. 19. The same. Relative size and form of conjugating frustule.
 Fig. 20. The same. Full size of sheath of sporangial frustule in this gathering.
 Fig. 21. The same. Full size of frustule produced by these conjugations.

XIX.—*Description of Helix odontophora, a new Species of the Corilla type, from Upper Ouwah, in Ceylon.* By W. H. BENSON, Esq.

Helix odontophora, mihi, n. sp.

H. testa late umbilicata, rotundato-vel ovato-discoidea, solidula, castanea vel rufescenti-lutea, superne subplanulata, oblique tenuiter costulato-striata, subtus valde concava, striata, nitida; spira planiuscula, versus apicem obtusum elevatiore, sutura impressa; anfractibus 4, primis convexiusculis, ultimo antice convexiore, tum descendente, dilatato-deflexo, subtus valde inflato; apertura perobliqua, obtuse subcordata, lamellis 2 parietalibus (superiore longe intrante curvata, inferiore subparallela, brevior, subcurvata, ab apertura remotiuscula), palatalibus 4 brevibus semilunaribus vel sinuatis (omnibus integris ab apertura conspicuis, extus perlucentibus) coarctata; peristomate purpurascenti-albido vel castaneo, calloso, breviter reflexo, marginibus superiore et inferiore subdentato-incrassatis.

Diam. major 26, minor 19, alt. 8 mill.

„ 22, „ 17, „ 7 „

Habitat in montibus Ceylanicis prope Fort M'Donald, Bandarewella, et Bibiligamua ad altitudinem ped. 4500. Teste Dom. F. Layard.

The examination of a broken specimen of a shell, supposed to be *H. erronea*, which I received from Mr. F. Layard, with the internal lamellæ fully exhibited, convinced me that a peculiar type had been overlooked; and Mr. Layard kindly forwarded to me the shells which he referred to *H. erronea* from Upper Ouwah and Pusilawe: the latter all belong to the true *erronea* type, with three parietal and four lengthened palatal lamellæ, also a single specimen out of five from Bandarewella; the rest all prove to be *H. odontophora*, with only two parietal lamellæ and more delicate sculpture (as in *H. Anax*, mihi, and *H. Humberti*, Brot), only four whorls, and short semilunar or sinuate palatal lamellæ entirely visible from the aperture,—the Fort M'Donald

and Bibiligamua ones exhibiting a chestnut colour, and those from Bandarewella having a paler reddish hue. A single specimen from Fort M'Donald has a fifth short and oblique lamella between the two central ones, evidently an accidental formation. The form of the aperture, that of the palatal lamellæ, the fewer whorls, and the colour as well as the conformation of the upper and lower sides distinguish the species from the Travancore *H. Anax*, notwithstanding the presence, as in that shell, of only two parietal lamellæ.

I have compared sixteen specimens of the new species with forty-seven of *H. erronea*. Two of them, opened, prove that there is no upper parietal lamella in the whole length, invariably to be detected from the aperture in *H. erronea*.

There are now six species known of the Ceylon and Travancore form, as separated from the Burmese *Plectopylis*.

In the 'Annals of Natural History' for August 1859, I stated that the Burmese *H. Achatina*, Gray (*Plectopylis*, nobis, Annals, April 1860), associated by Pfeiffer with the distinct type of *H. Rivolii*, under the name of *Ophiogyra*, and by H. Adams under that of *Corilla*, was ovoviviparous, and remarked that it would be interesting to know whether *H. Rivolii*, &c., were similar in habit. Mr. F. Layard now informs me that *H. Rivolii* and *H. erronea* are not ovoviviparous.

In the note to *H. Anax*, mihi (Annals, Jan. 1865), I referred to Brot's statement that four, and not three, palatal lamellæ occur in *H. Rivolii* and *H. erronea*. Brot omitted to refer to my discovery of this circumstance, recorded in the 'Annals' for April 1860, in the paper on *Plectopylis*.

The lamellæ figured in plate 2. fig. 8, of *H. erronea*, in the 'Journal de Conchyliologie' for 1864 are incorrectly drawn, the connivent parts of the two upper palatal ones being placed at the ends towards the aperture, instead of at the points most remote from it—a feature also observable in *H. Rivolii*. I have not seen a specimen of *H. Humberti*; but there can be no doubt, from the alleged resemblance of the single palatal lamella to the basal one in *H. erronea* (which, however, does not come in contact with the suture), that it diverges from it in the wrong direction in fig. 6. In *H. Rivolii* the basal palatal lamella is nearly parallel with the suture.

A single large specimen of *H. Rivolii*, in Mr. F. Layard's collection, from Moopane, has the two upper palatal lamellæ closely approaching the outer lip. Palatal lamellæ occur at the beginning of the last whorl in *H. odontophora* and *H. erronea*.

Cheltenham, January 30, 1865.